

practice as specified in 37 C.F.R. section 1.121. Appendix B to this Amendment includes a clean version of the full set of pending claims.

CLEAN VERSION OF THE AMENDED CLAIMS

1. (First Amended) A method of exercising components on integrated circuits, comprising the steps of:

providing a plurality of integrated circuits each having an optically sensitive device and a component wherein said optically sensitive device is electrically connected to said component;

simultaneously connecting each of the plurality of integrated circuits to an electrical source; and

simultaneously optically stimulating said optically sensitive devices so as to allow current to flow through said optically sensitive devices from said electrical source to said components so as to exercise said components.
2. (First Amended) The method of claim 1 wherein said electrical source is a power source and wherein said current flow is a positive current flow to said components.
3. (First Amended) The method of claim 1 wherein said electrical source is an electrical ground and wherein said current flow is a negative current flow to said components.

4. (First Amended) The method of claim 1 wherein said optically sensitive devices are diodes.

5. (First Amended) The method of claim 1 wherein the step of optically stimulating said optically sensitive devices comprises providing a probe card having a plurality of apertures therein, aligning said apertures with ones of said optically sensitive devices, and providing a source light beam through said apertures to optically stimulate said optically sensitive devices.

6. (First Amended) The method of claim 1 wherein the step of optically stimulating said optically sensitive devices comprises providing a filter mask, and activating said filter mask for a predetermined time period to allow passage of a light beam through said filter mask to optically stimulate said optically sensitive devices for said predetermined time period.

7. (First Amended) The method of claim 1 wherein the step of providing a plurality of integrated circuits comprises providing a wafer having said plurality of integrated circuits thereon.

8. (First Amended) The method of claim 1 wherein the step of optically stimulating said optically sensitive devices comprises providing a fiber optic bundle having individual strands therein, aligning selected ones of said individual strands with ones of said optically sensitive devices, and providing a light beam through said selected ones of said individual strands to optically stimulate ones of said optically sensitive devices.

9. (First Amended) The method of claim 1 wherein the step of connecting the integrated circuits to an electrical source comprises providing a probe card having an electrical lead connected at a first end to said electrical source and connected at a second end to a plurality of electrically conductive bumps, and connecting said electrically conductive bumps to ones of said integrated circuits.

10. (First Amended) The method of claim 9 wherein said probe card includes multiple layers therein including a power source layer connected to said electrical lead, an insulation layer and a ground layer positioned opposite said insulation layer from said power source layer and connected to an electrical ground, and wherein said probe card further includes a plurality of apertures that each extend through said multiple layers so as to allow the passage of light through said probe card to said integrated circuits.

11. (First Amended) A device for exercising components on a plurality of integrated circuits, comprising:

a probe card including:

a power source connection electrically connected to an outside power source and electrically connected to a power source contact pad on each of a plurality of integrated circuits during exercising of the integrated circuits;

a ground connection electrically connected to an outside electrical ground and electrically connected to a ground contact pad on each

of the plurality of integrated circuits during exercising of the integrated circuits;

a plurality of apertures that extend through said probe card and that are aligned with an optically sensitive device on each of said integrated circuits during exercising of the integrated circuits; and

a light source that provides a beam of light through said apertures so as to optically stimulate said optically sensitive devices to exercise said integrated circuits.

12. (First Amended) The device of claim 11 further comprising a filter mask that allows passage of said beam of light through said apertures for a predetermined time period to optically stimulate said optically sensitive devices for said predetermined time period.

13. (First Amended) The device of claim 11 further comprising a fiber optic bundle having individual strands therein, wherein selected ones of said individual strands are aligned with said apertures, and wherein said selected ones of said individual strands transmit said beam of light from said light source to said apertures.

15. (First Amended) The device of claim 11 further comprising a burn-in chamber containing said probe card and said light source, and further comprising a light control signal for controlling said light source, a multi-filter mask for filtering said light, a light channel controller for controlling said light from said light source, a fiber optic block for transmitting said light from said light source to said probe card, a heating

device for heating said integrated circuits, and a temperature control device for controlling said heating device.

16. (First Amended) The device of claim 15 wherein said burn-in chamber further comprises a parabolic reflector for directing said light to said probe card, said light control signal comprises a liquid crystal display panel, said multi-filter mask comprises at least one wavelength filter, said light channel controller comprises a computer, said fiber optic block comprises a fiber optic bundle, said heating device comprises heating coils, and said temperature control device comprises an anodized aluminum plate connected to a thermostat.

17. (First Amended) A device for exercising a component on an integrated circuit, comprising:

a probe card including:

a power source connection electrically connected to an outside power source and electrically connected to a power source contact pad on the integrated circuit during exercising of the integrated circuit;

a ground connection electrically connected to an outside electrical ground and electrically connected to a ground contact pad on the integrated circuit during exercising of the integrated circuit;

an aperture that extends through said probe card and that is aligned with an optically sensitive device on said integrated circuit during exercising of the integrated circuit; and